

CLAIMS

What is claimed is:

1. A system for projecting information content onto a seat located within a predefined area of a structure, when a door of the structure is opened, the
5 system comprising:

a sensor system located adjacent said door for detecting when said door is opened;

a projector subsystem located in front of said seat for projecting said information content onto said seat, said projector subsystem including;

10 a projector for projecting an optical signal onto said seat, said optical signal containing said information content; and

a controller for controlling said projector in accordance with said signal from said sensor.

15 2. The system of claim 1, further comprising a detector operably associated with said projector subsystem, for detecting the presence of an individual in said seat.

20 3. The system of claim 2, wherein said controller turns off said projector when said sensor indicates the presence of an individual in said seat.

4. The system of claim 1, wherein said projector comprises a liquid crystal display (LCD).

25 5. The system of claim 1, wherein said detector comprises an infrared sensor aimed at said seat.

6. The system of claim 1, wherein said sensor system includes a control for enabling an individual to manually enable and disable said sensor system.

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7. The system of claim 1, wherein said display comprises a silk screen image display.

8. An apparatus for projecting information onto a surface when a desired condition is present in an environment in which said apparatus is located, the apparatus comprising:

5 a receiver for receiving an electromagnetic signal generated when said desired condition is present;

a projection system for projecting an optical signal onto said surface to present said information in visually readable form to an individual; and

a detection system to detect if an individual is present in a path of said optical signal; and

10 wherein said projection system is responsive to a signal from said detection system to interrupt said optical signal when the presence of said individual in said path of said optical signal is detected, and also to retransmit said optical signal when said signal from said detection system abates.

15 9. The system of claim 8, further comprising a wireless transmitter remotely located from said receiver and disposed to detect said desired condition.

20 10. The system of claim 8, wherein said detection system comprises an infrared detector.

11. The system of claim 8, wherein said projection system comprises a liquid crystal display (LCD).

25 12. The system of claim 8, wherein said projection system comprises a silk screen image.

30 13. The system of claim 8, further comprising a mirror positioned adjacent said LCD for re-directing said optical signal from a first direction to a second direction.

14. The system of claim 8, further comprising a controller operably associated with said projection system and said detection system for controlling operation of said projection system and said detection system.

- 5 15. The system of claim 8, further comprising a battery for powering said projection system and said detection system.

16. A system for projecting information content onto a seat when a first condition occurs in a predefined area in which said seat is located, said system comprising:

5 a transmitter disposed adjacent a structural element associated with said predefined area, for generating a first signal indicating the occurrence of said first condition;

a projection subsystem located adjacent said seat so as to be facing said seat, said projection subsystem comprising:

10 a receiver for receiving said first signal;

a controller for receiving said first signal;

a projector for projecting an optical signal onto said seat, said optical signal providing said information content;

15 a detection system for detecting if an individual is present in said seat and generating a second signal indicating same; and

said controller controlling said projector and said detection system in accordance with receipt of said first signal, and further in accordance with said second signal so as to turn off said projector when said second signal is present.

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17. The system of claim 16, further comprising a sensor, said sensor being disposed adjacent a door of said predefined area and operable to sense when said door is opened; and

25 wherein said sensor provides an indication of the occurrence of said first condition.

18. The system of claim 16, wherein said projector comprises a liquid crystal display (LCD).

30 19. The system of claim 16, wherein said projector comprises a silk screen image.

20. The system of claim 16, wherein said detection system comprises an infrared sensor.

5 21. The system of claim 16, wherein said projector comprises a backlight and a display, the backlight illuminating the display.

10 22. The system of claim 16, further comprising a switch operably associated with said detector system for enabling an individual to turn off said projection subsystem.

23. The system of claim 16, wherein said transmitter comprises a wireless transmitter and said receiver comprises a wireless receiver.

15 24. The system of claim 16, further comprising a control operably associated with said transmitter to allow an individual to manually enable and disable said transmitter.

25. A method of aiding an individual in locating a specific structure from a plurality of like structures in a predefined area, comprising:

disposing an projector system adjacent each one of said structures;

5 configuring each said projector system to generate a unique identifying message in the form of an optical signal directed at its associated said structure, to thus project a unique, optical identifying message directly onto its associated said structure that is visually readable by an individual.

26. The method of claim 25, further comprising:

10 using a plurality of sensors, each said sensor being independently associated with a specific one of said structures, to detect when an individual is positioned in front of a specific one of said structures; and

turning off said projector system associated with said sensor that has detected the presence of said individual in front of said structure.

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27. The method of claim 25, further comprising turning on all of said projector systems when a first condition occurs.

28. The method of claim 27, wherein said first condition comprises the
20 opening of a door associated with said pre-defined area.

29. The method of claim 26, wherein projecting said unique, identifying optical signal onto said associated structure comprises projecting said unique, identifying optical signal onto a seat.

30. A method for identifying seats within a predetermined area, comprising:

5 using a plurality of projectors, with each said projector being disposed in front an associated one of said seats, to project an optical signal onto each said seat uniquely identifying each said seat; and

turning off a given one of said projectors when an individual is seated in said given one of said seats.

31. A fold down seat tray comprising:
- a projector system for projecting an optical signal onto a portion of an adjacently positioned seat; and
 - an optical detection system operably associated with said projector
- 5 subsystem for disabling said projector system when an individual has occupied said adjacently positioned seat.

32. A fold down seat tray comprising:
- a projector system for projecting seat identifying information onto a portion of an adjacently disposed seat; and
 - 5 said seat identifying information being provided in the form of an optical signal.